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# Contract Price Reporting for Fruits and Vegetables

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## Introduction

Expanding use of forward contracts is a significant change occurring in the marketing of agricultural products. Forward contracting allows sellers and buyers to coordinate production, marketing, and utilization plans before actual change of ownership occurs. This is particularly advantageous for perishable commodities, such as fruits and vegetables for processing, where little time is available for negotiation once the crop is ready for harvest. But forward contracts are commonly consummated in private transactions, and little information about price and other terms of trade is made available to other sellers and buyers. Lack of such information can contribute to market inefficiencies. This report considers the possibilities for providing this type of information about fruit and vegetable contracts through the Federal-State market news program, administered by the U.S. Department of Agriculture (USDA) Agricultural Marketing Service (AMS).

## Fruit and Vegetable Reporting

For many years the Federal Government has reported cash prices determined in commodity markets across the country. However, changes in marketing practices have shifted transactions away from the traditional cash markets, where prices are determined publicly, to privately negotiated contracts between buyers and sellers. USDA data indicate that for fruits and vegetables, more than 50 percent of the production is now processed. A significant proportion of the processing fruits and almost all of the processing vegetables are sold on contract between growers and processors. The contracts specify a price or formula for determining price as well as other terms of trade.

Processing vegetable contracts are generally signed before planting; hence, the grower must make a production decision with no harvesttime quantity or price information. In contrast, fruit contracts are usually signed near harvesttime, when an estimate of crop size becomes available. Consequently, processing price offers versus fresh outlet harvest prices are an important comparison influencing fruit grower decisions.

The overall market for fruits and vegetables consists of three distinct sectors: (1) the fresh market, on which price information is generally available and reported by the AMS Federal-State market news program; (2) the open spot market for processor purchases, on which some price information is also reported by the market news program; and (3) the contract market for processor purchases, on which limited reporting occurs for selected locations.

The contract market is distinctly different from the other two markets. In the contract market, the establishment of price is separated from physical delivery by a few weeks to many months. In the other two markets, price establishment and physical delivery are simultaneous. Contracting has evolved in agricultural markets as a way for producers to fix returns at the time resources are committed to production, reduce price risk, and assure marketing outlets. Buyers are motivated to contract in order to fix input costs, reduce price risks, assure supply quantity and quality, and make possible the scheduling of raw product flow through processing facilities.

Information regarding prices and terms of trade for processing fruits and vegetables sold on contract is limited and unevenly distributed. Since the transactions are privately negotiated,

information on the terms involved is not easily obtained. Informal, spontaneous exchanges provide growers some information within local areas. The only existing large-scale reporting effort is by the American Agricultural Marketing Association (AAMA), which is the bargaining affiliate of the American Farm Bureau Federation. While this effort represents the admirable accomplishment of a difficult task, the AAMA reports may be subject to criticism for possibly being biased to the growers' viewpoint. Large processors and bargaining associations generally have well-developed information sources, while information sources for smaller processors are often limited. Unorganized growers have virtually no information for commodities beyond their immediate vicinity.

### Information and Economic Theory

Economic theory holds that broad dissemination of information is essential for an efficient marketing system, one close to the ideal of perfect competition. "Price data whose informational content accurately reflects changes in prices relative to one another over time, space, form, and perhaps other dimensions promote effective allocation decisions among those who use them."<sup>1/</sup> In the absence of complete information, misallocation of resources may occur. Lack of knowledge increases longrun

marketing costs as buyers and sellers search for information and/or pay risk premiums for capital.

Information has characteristics of a public good. It is costly to gather, but once gathered, distribution costs are relatively minor. Information may be shared by a large number of recipients without reducing the amount available to anyone. It is useful to nonmarket participants as well as market participants. The degree of usefulness, however, is extremely difficult to measure, particularly for nonmarket participants.

It is generally argued that public provision of market information will benefit smaller firms and farmers who do not have the resources to gather information on their own. The amount of search undertaken by any one firm is guided by expected returns which are partially determined by the number of units the firm handles. Searching for price information is a risky venture which may lead to underinvestment in data gathering, especially in a market with a large number of small firms.<sup>2/</sup>

Growers and processors in a given area know the contract prices and terms being offered; bargaining associations are reporting information through newsletters; and market participants make phone calls across the country to

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<sup>1/</sup> Houck, James P., "Concepts of Price: Implications for Agricultural Data Collection," Agricultural and Rural Data Workshop Proceedings, Series A. May 4-6, 1977. ESCS, Washington, D.C., p. 5.

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<sup>2/</sup> Riemenschneider, Charles H., "Economic Structure, Price Discovery Mechanisms and the Informational Content and Nature of USDA Prices," Agricultural and Rural Data Workshop Proceedings, Series A, May 4-6, 1977. ESCS, Washington, D.C., p. 32.

get the latest contract prices and terms. The fact that market participants presently gather and disseminate some information on contract prices and terms, and expend time and money obtaining the latest information, indicates their recognition that information is indeed of value.

A consistent, comprehensive, nationwide system of reporting would help alleviate the problems caused by rumors and unreliable information. It would add to the efficient operation of markets, and would provide an objective historical record of contract prices and terms.

#### **Existing Contract Reporting**

Contract price reports are issued for a few commodities through the AMS Fruit and Vegetable market news program. Wine grapes and apples for processing in California are two of the more comprehensive reports published, while a number of other California processing contracts are reported on a lesser scale in conjunction with fresh market reports. The Benton Harbor, Mich., fruit and vegetable market news office issues a seasonal weekly report on processed fruit which reports prices and quantities of some fruits and vegetables delivered to processors. The report includes data for competing marketing areas but does not contain information about contract terms. Very spotty and occasional reporting on contracting efforts occurs in other States.

The American Agricultural Marketing Association provides current contract information to their membership, especially for vegetables. The Spotlight newsletter from AAMA headquarters in Chicago summarizes

information received from various States during the contracting period. In addition, the State organization newsletters to local members generally provide local and appropriate national information.

AAMA reports both processor offers and final contract prices and terms. While their reporting system demonstrates the feasibility of such reporting, there are at least three drawbacks to the AAMA reports. First, they are distributed primarily to their own membership. Second, since AAMA represents growers, their reports are not likely to be acceptable as an objective historical record. Finally, since AAMA does not uniformly represent growers over the entire country, their reports based on member input do not cover all fruits and vegetables, nor do they necessarily represent a complete picture in a given area.

Local newspapers and trade publications often carry contract price information, especially during negotiation periods. However, these reports seldom include detailed accounts of nonprice terms and reach a geographically limited audience.

In addition to these current market information reports, there are some cases of reporting of contract terms which do not serve quite the same purpose as a market news report. The Wisconsin Department of Agriculture annually collects contracts offered by processors, summarizes price and contract terms maintaining anonymity of the individual processor, and makes a report available to all interested parties. The major drawback of the system is lack of timeliness due to limited resources for preparing the

summary, which is usually not available until several months after planting. The Department receives almost 100 percent voluntary cooperation from processors, but the effort is backed by a statute that could be invoked to require processors to submit contracts. The processors interviewed in Wisconsin seemed quite comfortable with this system and found it useful as a guide to their relative competitive position.

In New York, State law requires that prices to be paid for grapes be posted by September 14. Thus, prices must be announced before the grapes are harvested.

In North Carolina, contracts must be approved by the State Department of Agriculture before processors sign growers to the contracts. The State law spells out specific terms which must be included in a valid contract.

### Objectives and Procedures

The objectives of this project were to investigate the need for and the desirability of the AMS Federal-State market news program reporting price and other terms for processing fruit and vegetable contracts.

Though the benefits from market information are difficult to quantify, there have been attempts to estimate the value of market information. Controlled experiments in classroom environments have shown positive returns for added information in decisionmaking.<sup>3/</sup>

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<sup>3/</sup> Debertin, D. L., G. A. Harrison, R. J. Rader and L. P. Bohl, "Estimating the Returns to Information: A Gaming Approach," American Journal of Agricultural Economics, 57(May 1975):316-321.

A cooperative research effort between the University of California-Davis and the Economics, Statistics, and Cooperatives Service (ESCS), now the Economics and Statistics Service (ESS), USDA, attempted to estimate the value of additional market information using the Bayesian approach.<sup>4/</sup>

One study looked at the feasibility of measuring benefits of the California Federal-State market news program.<sup>5/</sup> It was found impossible to measure benefits to consumers and nonmarket users, but possible to estimate the minimum value to market users represented by the opportunity cost of obtaining the information from alternative sources. Such a measurement does not estimate the marginal value of supplying information, but provides some indication of minimum cost-benefit ratios involved.

Because of resource limitations and lack of adequate quantitative methods for assessing the benefits of contract price reporting, this study was conducted through open-end interviews. Six

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<sup>4/</sup> Bessler, David and Charles V. Moore, "Risk Transfer, Information and Production Contracts: A Suggested Analytical Methodology," paper presented at AAEE annual meeting, Columbus, Ohio, Aug. 1975.

<sup>5/</sup> Moulton, K. A., and Thomas P. Levinson, The Feasibility of Measuring Benefits of the California Federal-State Market News Service, University of California, Division of Agricultural Sciences, Special Publication 8003, Sept. 1974, p. 65.

commodities were chosen for indepth analysis. Value of U.S. production was one criteria for selecting the commodities studied. Relative importance of individual States determined areas of the country emphasized. The six processing commodities selected for study were potatoes, tomatoes, sweet corn, cucumbers for pickling, apples, and grapes.

Interviewees were selected to represent all important production areas for the six commodities and a broad range of growers, processors, farm organizations, bargaining groups, university and extension personnel, cooperatives, government and nongovernment market news agencies, trade associations, State departments of agriculture, and other interested parties.

#### **Characteristics Related To Contract Reporting**

The commodities chosen for study represent a cross section of selected characteristics found in the processing fruit and vegetable industry including: (1) alternative land uses; (2) alternative market outlets; (3) geographic dispersion or concentration of production areas; and (4) the existence of bargaining associations. These characteristics provide a useful set of criteria for judging the relative importance of reporting contract prices and terms for a particular commodity. However, they are not necessarily exhaustive and other characteristics useful for discriminating the need for reporting might be identifiable.

While other factors may be important in determining the need for price reporting, the characteristics listed in table 1 are generally observable, and are related to factors which economic theory indicates are important relative

to market information. The factors provide one means of differentiating between commodities, and between areas of the country in which particular processing commodities are produced. They provide a useful guideline for initial evaluation of the potential benefits from reporting prices and contract terms, though they do not provide a final measure of the necessity or desirability of reporting contract terms. Table 1 summarizes the characteristics and indicates where the specific commodities fit into the classification.

The first characteristic considered is alternative land uses. If growers can use their land in the production of more than one commodity, then market information about alternative commodities is more important for them than if they are locked into the production of only one commodity. Thus, it is more important to report on a commodity which competes with others for land use than for commodities (such as tree fruits) that do not compete for land use in the short run.

Table 1 outlines all possible combinations of the selected market characteristics. For alternative land uses, the first eight cases indicate crops which compete for land use and are designated with 1's to indicate the importance of reporting. The last eight cases are designated with 0's, since they represent commodities which have no shortrun alternative land uses.

The second characteristic considered is alternative market outlets. If growers can market their crops either in the fresh market or for processing, then they need to be informed about both markets. Contracts are usually offered

Table 1--Relative importance of reporting indicated by production and market characteristics

Case numbers and commodities	Production and market characteristics								Relative importance of reporting <sup>1/</sup> row totals
	Alternative land uses		Alternative market outlets		Several production areas		Lacks bargaining associations		
	yes	no	yes	no	yes	no	yes	no	
Case 1	1		1		1		1		4
Case 2 (potatoes)	1		1		1			0	3
Case 3	1		1			0	1		3
Case 4	1		1			0		0	2
Case 5 (cucumbers)	1			0	1		1		3
Case 6 (sweet corn)	1			0	1			0	2
Case 7	1			0		0	1		2
Case 8 (tomatoes)	1			0		0		0	1
Case 9		0	1		1		1		3
Case 10		0	1		1			0	2
Case 11 (grapes)		0	1			0	1		2
Case 12		0	1			0		0	1
Case 13 (apples)		0		0 <sup>2/</sup>	1		1		2
Case 14		0		0	1			0	1
Case 15		0		0		0	1		1
Case 16		0		0		0		0	0

<sup>1/</sup> The range of possible values for row totals is 0 to 4. A commodity displaying characteristics that total zero indicates the least need for reporting. A commodity totaling 4 indicates the greatest need. By assigning 1's and 0's and adding across columns, we assign equal weight to each characteristic.

<sup>2/</sup> Some alternatives exist for a few varieties.



before planting or harvesting, at which time growers do not know what the fresh market price will be. They must compare their expectations of fresh market prices at harvest with the contract offering, or perhaps with terms offered by several processors. A decision on whether to accept a contract must be made within time limits imposed by the total amounts to be contracted by processors and the availability of other growers to take those contracts. If only one market outlet is available to the grower, then the need for information is reduced because the only decision is whether or not to produce at the offered price. Nonproducer market participants may find it even more important than growers to have information on comparative prices in order to make sound decisions regarding purchases and sales. In table 1, a 1 is assigned if alternative market outlets exist and a 0 is assigned if they do not.

The third characteristic is the geographic dispersion of production areas. If a commodity is produced in several production areas, it is more costly to collect and disseminate information, and public reporting of contract prices and terms is more important than if the commodity is produced in only one area. With dispersed production areas, major processors are likely to operate in each area and can switch some of their demand between areas. Growers' knowledge of terms being offered in competing production areas will permit comparison and strengthen each grower's decision base.

A value of 1 is assigned when there are several geographically dispersed production areas. When there is only one production area, or when there are several areas, but one area is clearly

dominant (for example, California in processed tomatoes), a value of 0 is assigned.

The fourth characteristic is the existence of bargaining associations for the commodity. When an association exists, it can be expected to keep its membership well informed about contract prices and terms. If growers lack bargaining associations, it is more important from their standpoint that contract prices and terms be reported than if an association exists. It is costly to gather information from a large number of producers, and each individual has less economic incentive for private collection; hence, government reporting is vital. Without a bargaining association, considerable grower ignorance of alternative contract terms within the producing area provides opportunity for discriminatory treatment, a range of prices, and probably lower average grower returns. Information should benefit growers lacking a bargaining association; hence, a 1 is used to indicate the importance of reporting.

With these four characteristics and their implications for the importance of reporting in mind, the six commodities were selected for study. Each commodity is listed in table 1 next to the case number that best fits its individual profile with respect to the characteristics. For example, potatoes fit Case 2; they compete with other crops for land use; most potatoes may go to alternative markets at harvest (except those conditioned for chipping); they are grown in production areas scattered throughout the country; and there are active bargaining associations in the major production areas. On a scale ranging from 0 to 4, Case 2 has a row total of three, indicating that it is relatively important to report contract prices and terms for potatoes.

At the other end of the scale, a commodity such as cling peaches has no shortrun alternative land uses, no harvest alternatives (nearly all are processed), only one production area (California), and an active bargaining association. Thus, cling peaches fit Case 16, and are at the lowest end of the scale (0) in terms of the relative need for reporting.

Table 1 does not indicate whether a specific commodity should be reported. It merely provides an ordinal ranking method for comparing the relative importance of reporting one commodity versus another, based on selected market characteristics. There is obviously a judgment required on which market characteristics to include and the explicit assumption that included characteristics be given equal weight. But table 1 does provide a method of systematically viewing several observable market characteristics which have an impact on the need for contract reporting.

The six commodities selected provide a cross section of the various cases in table 1. Potatoes and cucumbers are relatively high with a row total of three; sweet corn, grapes, and apples are in the middle with row totals of two; and tomatoes are relatively low with a row total of one. The relationship of each of the commodities to the market characteristics will be discussed briefly in the following section.

#### **Individual Commodity Characteristics**

This section provides a brief sketch of the relevant production, marketing, and contracting factors that bear on the

feasibility of reporting contract prices and terms for each of the selected commodities. The implications for contract reporting based on the characteristics also are pointed out.

#### **Potatoes**

Potatoes rank first in total value of production among all vegetable crops. They are produced throughout the United States and harvested in all seasons; but the fall crop comprises more than 85 percent of U.S. production, is produced in 25 States, and is the principal source of potatoes for processing. The major production areas in the Northwest, North Central States, and Maine account for about 75 percent of the fall crop. While in 1960, only 28 percent of the potatoes used for food were processed, this percentage has grown to almost 60 percent.<sup>6/</sup>

Potatoes for processing include those that are frozen, dehydrated, chipped, and canned. Different varieties are used for chipping than for frozen or dehydrated products. They generally are produced in different areas under different production and marketing systems. Potato chips are processed in the consuming areas to reduce shipment of the bulky finished product, while frozen and dehydrated products are processed in the growing area to avoid shipping waste and moisture to the consuming areas. A major proportion of frozen and dehydrated products are made from western late crop potatoes. Chipping is a minor factor in the market for that crop.

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<sup>6/</sup> Based on Potatoes and Sweetpotatoes, Statistical Reporting Service, USDA, Washington, D.C., various issues.

Accompanying the shift from fresh market sales to processing sales has been a change in marketing practices. Instead of open market sales priced separately for each transaction, potatoes for processing are sold primarily on contracts which establish price and related terms of sale before the crop is planted. Each of the major processing potato production areas has somewhat unique characteristics reflected in contract terms geared to production conditions and processor needs.

Potatoes generally have better marketing alternatives than any other processing vegetable or fruit. Most major processing areas ship more potatoes fresh. In addition, growers often contract for less than total expected production, and processors for less than expected processing needs. This retains the flexibility for marketing some potatoes at open market prices at harvesttime or during the storage season. The extent of marketing alternatives for potatoes is one of the distinguishing characteristics reflected in table 1, which indicates the need for reporting contract terms for potatoes.

Most potatoes are grown in rotation with other crops to help control diseases and insects. As price relationships change between potatoes and rotation or such competing crops as wheat, sugar beets, and alfalfa, potato acreage may be adjusted. ESS data indicate that changes occur annually in planted acreage for potatoes, amounting to as much as 8-9 percent above or below the previous year. Thus, comparative information on contract prices and terms is needed for decisionmaking at contracting time, as well as at harvest and during storage.

The processing potato industry is comprised of numerous growers who deal with one or a few processors in a given location. The four major late crop producing areas all have bargaining associations representing many growers in bargaining with the processors.<sup>7/</sup> The grower members are tied to the bargaining groups by agreements which commit them to not sign contracts until the bargaining group has negotiated an approved contract with the particular processor. But the participation of growers varies widely in number from year to year. If negotiations fail to bring about a settlement by a specific date, the agreements provide that growers are no longer obligated.

Bargaining agreements establish minimum contract terms, but individual growers negotiate specific contracts with individual processors. Thus, conclusion of bargaining efforts does not end the need for contract information, nor do negotiated contract terms provide the only information needed to understand the contract sales in the area.

Potatoes for chipping appear to have more problems associated with the contracting and pricing mechanism than most processing potatoes. There is little similarity in contracts offered by various chippers who have used U.S. table stock potato grading standards in their contracts along with requirements on size, specific gravity, and "satisfactory chipping quality." The latter clause has been the source of problems between growers and chippers.

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<sup>7/</sup> Report of the Potato Processing Study Group, USDA, Washington, D.C., July 1974.

Grade standards for chipping potatoes could change the contracting situation for chipping potatoes. A model contract was developed and used in 1974. However, it was not used in 1975 when growers were in a weaker position. Chippers generally put out contracts which growers must either take or leave with little bargaining.

Efforts at information exchange between the potato bargaining associations indicate active producer interest in information from other production regions. In the past several years there have been annual National Potato Bargaining Conferences and periodic smaller meetings. The National Potato Promotion Board contracted with the Livestock Advisory Service, Inc., of Kansas City, Mo., to study the feasibility of a national information exchange system. Bargaining associations in major processing potato production areas requested the Farmer Cooperative Service (now the Agricultural Cooperative Service), USDA, to study and make recommendations on information exchange.<sup>8/</sup> And, Potato Growers of Idaho installed electronic equipment to provide growers timely information on fresh and processing prices and processor activities.

The characteristics of the production and marketing systems for all six of the commodities studied indicate some items to be given attention in any contract reporting undertaken. While most implications for contract reporting are commodity specific,

general implications for contract reporting need to be kept in mind.

If reporting of contract prices and terms for potatoes is initiated, the intended use of the potatoes should be included. Prices paid vary in relation to end use, which affects processing recovery rates, as well as costs of production and handling.

When contract terms are successfully negotiated, price and contract information for reporting on potatoes should be easily obtainable through bargaining associations. Price offers in latter stages of negotiations often are public knowledge, and may also be useful for reporting, especially when a stalemate develops and a negotiated settlement is not reached.

In the event no agreement is reached, individual contracts could provide a source of information when growers are signing contracts after release by the bargaining association. Even when agreements are reached, actual contract terms should be reported, since they will likely differ from negotiated minimums.

Information on production and inventories of dehydrated products is not presently available, but is important for negotiation purposes. USDA should investigate the possibility of obtaining and reporting such information. More comprehensive and detailed reports on frozen products also would be valuable in negotiation.

The argument is often made that all contracts vary according to processor product requirements and are therefore not meaningful for reporting. However, Potato Growers of Idaho has done substantial work toward developing standardized contracts with flexibility designed to adapt to particular

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<sup>8/</sup> Phillips, Michael J., Thomas L. Sporleder, James A. Baarda and Gilbert W. Biggs, Processed Potato Growers' Associations: Information and Organization Needs, FCS Research Report 35, Farmer Cooperative Service, USDA, Jan. 1977.

processor needs. Such standard contracts may be helpful in negotiations by bargaining associations. Reporting efforts would likely encourage further contract standardization, in turn making reporting easier and encouraging more competitive purchasing, since comparative analysis of contracts would be facilitated.

### Cucumbers for Pickles

Cucumbers for pickles rank sixth in value for processing among vegetables in the United States. They are produced in several geographically isolated areas, ranging from the west coast to the eastern seaboard. More than one-third of the U.S. cucumber crop is produced in the Ohio, Michigan, and Wisconsin area. North Carolina, California, and Texas also are major producers. Cucumbers are machine-harvested in the Midwest, especially in Michigan, but are generally handpicked elsewhere.

Contracting accounts for 90 percent of the cucumbers produced for pickling (1976, Statistical Reporting Service, now a part of ESS). Cucumber prices and contract terms vary depending on the region. Most contracts are relatively simple, specifying the number of acres to be grown, the price to be paid for various sizes, the price at which the buyer furnishes seed to the grower, and some form of payment schedule. Horticultural decisions, including the timing and method of harvest, are generally left to the grower.

Cucumbers grown for pickles have no alternative market outlet at harvest. They compete with other crops for land use. In years of high prices, soybeans and grain crops provide vigorous competition for cucumber land in most areas. Peas and sweet corn compete in the Midwest and West; competition comes

from cotton and, to some extent, tobacco in the Southeast.

The American Agricultural Marketing Association bargains for cucumber growers in Michigan and Ohio. But these growers represent less than 30 percent of total U.S. value of production. There are no bargaining associations in the other States. In table 1, we indicated that there were no bargaining associations in cucumbers (Case 5). Indicating that there were bargaining associations would have put cucumbers into Case 6 with a row total of 2 instead of 3. Since neither Case 5 nor Case 6 applies exactly, cucumbers might best be represented with a row total of 2.5.

Cucumbers have an industry structure made up of a relatively large number of growers and a relatively small number of processors. Depending on the region of the country, there may also be intermediate market levels with brokers, packers, or briners who buy from growers and sell to the processors. These intermediaries may have handshake agreements or written contracts with the growers as well as processors. They serve the function of assimilating the production from many small growers and/or facilitating the movement of cucumbers from a production area in one part of the country (e.g., North Carolina) to processors in another area (e.g., Michigan).

Cucumbers rank high enough in table 1 to be considered as a serious candidate for reporting. The industry has many small unorganized growers who could benefit from contract information. The problems of reporting appear relatively minimal, since cucumber contracts specify fewer terms than most vegetable contracts.

## Tomatoes

Tomatoes rank second only to potatoes in value for processing, according to USDA's ESS data. California produces approximately 85 percent of the U.S. crop, with scattered production in other areas. Ohio and Indiana form a production area that is second in volume to California but produces only about 8 percent of the total crop. More than 95 percent of the tomatoes for processing are acquired by contracting.

The dominance of the California production area has an impact similar to being the only area, reducing the relative need for reporting tomato contracts. However, the individuals interviewed in production areas other than California indicated that the prices and contract terms determined in California had a strong impact on pricing decisions in their areas. They therefore felt a need for better availability of information on those contracts. But California growers feel that contract prices in other areas influence their contract prices and terms. Final contract terms have been known in other areas far in advance of California in recent years.

The same dominance by California also makes the task of reporting a relatively simple one. If information were gathered from California and three other States, a comprehensive report could be compiled for processing tomatoes.

Tomatoes compete with the grains, soybeans, sweet corn, and sugar beets for land use. But tomato growers do not switch into and out of tomato production in large numbers. Once growers have

committed resources and/or developed reliable sources of harvest labor, they are not likely to discontinue production entirely. Rather, they may adjust acres planted based on the price of competing crops.

Tomatoes grown for processing have no alternative market outlet at harvest. Different varieties are grown for processing than for fresh market. Growers may contract less than 100 percent of their acreage in the hope of selling some of their production on the open (processor) market at harvest. However, they can be assured neither of an outlet for this production nor of favorable prices at harvest.

There are bargaining associations in all the major tomato production areas. However, the extent of bargaining activity varies from State to State. In California, there is active bargaining with processors over specific contract prices and terms. Actual bargaining activity in Ohio, New Jersey, and Indiana is much less than in California, but the associations perform an important information function for their members.

The tomato industry is characterized by a relatively large number of growers and a small number of processors. Since processing tomatoes cannot be shipped long distances, growers must sell to processing plants in their immediate area.

While tomato contracts are complex, they most commonly specify acreage, with price based on a color scale and percent usable. In California processors determine harvesttime, while in the other States, this decision is left to

the grower, advised by processor field representatives. Timing of harvest in tomatoes can be crucial to yield and quality. Contracts often have clauses which limit either the total tonnage or the daily tonnage to be received in order to protect the processor from oversupply during peak periods, or when yields are exceptionally high.

AAMA currently reports tomato contracts in its Spotlight newsletter based on input from association membership. Although AAMA is not active in California, it does include information on California contracts in reports going to producers in the other processing tomato areas.

Tomatoes rank relatively low in table 1, which implies that the need for reporting may not be particularly great. Producers within California are well informed through their bargaining association, which plays a major role in determining terms of sale. Since California has only one producer bargaining association representing most of the production, and the remaining production areas are concentrated within a few States, it should be relatively easy to report tomato contract information.

### Sweet Corn

Sweet corn ranks third in total value of vegetables grown for processing. The discussion for sweet corn may be assumed to apply generally for snap beans and green peas. All of these commodities are produced heavily in the same States, and many processors handle all three. Specific characteristics for each differ, but similar conclusions would likely be reached for all three.

The major sweet corn production areas are the Midwest and Pacific Northwest. Midwest acreage is greater, but Northwest yields and prices are generally higher. Midwest sweet corn plots tend to be smaller, and it is the processors who own much of the necessary harvest equipment. For example, sweet corn is grown as a secondary cash crop on many dairy farms in Wisconsin. In the Northwest, sweet corn is often a primary crop on larger, usually irrigated, farms which have their own production equipment.

Sweet corn competes for land use with a wide range of crops. Principal competing crops are peas, snap beans, potatoes, wheat, soybeans, field corn, and alfalfa. There are no alternative market outlets for sweet corn grown for processing. However, there are two processing outlets for sweet corn--frozen and canned. The bulk of the sweet corn harvested in Oregon is frozen, while in most other States the larger portion goes to canning.

Sweet corn presents a somewhat mixed picture with respect to bargaining associations. There are associations in Oregon, Washington, Idaho, and Wisconsin, but not in Minnesota and Illinois. Thus, sweet corn resembles cucumbers and might also be characterized by Case 5 in table 1. Again, maybe a value of 2.5 would more accurately reflect the relative need for reporting contract information for sweet corn.

Contracting accounts for more than 99 percent of the processing sweet corn production. While contracts display a certain amount of uniformity within a particular State or region, there is substantial variation in the price and nonprice terms between different

production regions. For example, Oregon contracts are usually priced f.o.b. processor's door, while in Washington and the Midwest, they are usually priced f.o.b. grower's field.

Contracts generally specify the delivery of production from a specified acreage with minimum or maximum tonnage limitations. They usually contain passed acreage clauses providing the grower some percentage of full payment if the processor decides not to use the grower's corn. Contracts may stipulate varying prices for different maturities. Processors often control decisions about the timing of planting and harvest, particularly when they own the necessary machinery.

Some contracts may include an escalator clause tying sweet corn prices to field corn prices. Such clauses are used to encourage growers to plant sweet corn during years of high field corn prices. The cost impact of these clauses can be hedged in the corn futures markets at the processors discretion. AAMA currently reports sweet corn contracts in its Spotlight newsletter, based on member input.

Sweet corn ranks high enough in table 1 to warrant reporting consideration. Widespread production and relatively complicated contracts would complicate reporting. But these characteristics also make improved information important to farmers for making contracting decisions. Similar situations exist for snap beans and green peas.

## Apples

Apples are widely grown in the United States. Among the noncitrus fruits, they are second only to grapes in total tonnage produced and value of utilization. Many States produce both

processing and fresh market apples, but major apple processing activity is concentrated in certain areas of the United States.

Western New York produces the largest processing apple crop and makes juice, frozen slices, and applesauce. Large orchards in Pennsylvania, Virginia, and West Virginia produce significant quantities of processing apples for utilization by large processors in canned slices, juice, and sauce.

California and Michigan are also major processing areas. Michigan produces juice, sauce, and frozen slices. California has two separate processing areas: (1) the Sebastopol area produces Gravensteins for sauce and juice; (2) the Watsonville area produces Newtown Pippin apples for fresh market or processing. These two principal processing varieties in California are often blended with milder apples such as Red Delicious.

Washington, while producing primarily for fresh market, supplies culls that are unacceptable for fresh sale to in-State processors and for shipment to California processors.

Apple growers do not have annual alternative land uses in the short run. They have limited alternatives for choosing between fresh and processing sales, as discussed above. Therefore, in table 1, they are given 0's for those factors in determining the need for reporting contract prices and terms.

Contract characteristics for apples vary widely according to area of the country. Apples for processing are sold largely on a posted price, plant delivery basis rather than through contracts. Informal handshake agreements and solid



verbal commitments are more frequent types of contract arrangements for apple sales than actual written contracts. Processing apple commitments are usually not made until very near harvest when the processor and grower can tell what the quality and quantity of the crop will likely be.

Michigan has the most formal contracting arrangement for apples under the Marketing and Bargaining Board Act, requiring qualification of bargaining representatives. But, since growers sell their apples by individual orchard blocks, if they do not enter into a negotiated agreement to sell a particular block to processors, they do have the alternative of selling on the fresh market.

There is little or no contracting in Washington for apples. The western New York processors sign some contracts in September for specified quantities at a given price, quality, and size.

The AAMA bargains for processing apple prices in Pennsylvania, Virginia, and West Virginia. Generally, Pennsylvania prices are announced the first week of September and are published in newspapers. Prices seldom change once opening prices are announced.

In the Sebastopol, Calif., area prices have been posted during recent years by local agreement; before that, minimum price contracts were often signed with prices adjusted upward later if warranted by the market. Such upward price adjustments from posted prices may still occur.

The International Apple Institute, Washington, D.C., publishes a weekly

bulletin which includes processing prices for all major processing areas. Its price information is obtained from industry personnel and its reports are highly regarded.

There is also some reporting of processing apple prices by the fruit and vegetable market news program in San Francisco, Calif. The New York Farm Bureau Marketing Cooperative publishes price information from New York processors, as well as from competing areas. The Western New York Apple Growers Association also disseminates some processing apple information.

Based on scattered production areas and lack of bargaining associations -- except in a few instances -- processing apples are shown in table 1 as having a significant need for reporting. Market news reports could be issued once a market becomes active near harvesttime in each area and continue according to each area's season. Terms to be covered include the size range and associated price per bushel by variety, as is normal for specifying processing apple purchases delivered to the plant door. Intended use is an important variable affecting apple purchases and should be included in any reports issued.

## Grapes

Grapes are the largest noncitrus fruit crop in both tonnage and value. They have four major use categories -- table, raisin, wine, and juice -- in addition to minor amounts that are canned. The same grape variety may be used for more than one, or in the case of Thompson Seedless, all purposes.

Most of the sweet juice produced in the United States is from Concord, which are also used for jams, jellies,

pudding, and pies. Two seedless grape varieties, Thompson and Canner, dominate canning use. Table grapes include Thompson Seedless, Tokay, and several others. Dried or raisin grapes are mainly Thompson Seedless. Wine grape varieties are numerous and are used for several types of wine including table, dessert, and high-proof brandy and spirits.

Grapes are grown in several geographic areas, but California dominates U.S. grape production with more than 90 percent of the total. Commercial production of predominantly Concord grapes also occurs in significant quantities in Washington and New York.

New York's large Great Lakes Concord production goes mostly to juice products other than wine. Table grapes are almost entirely California produced and raisin grapes are produced solely in California.

While California is overwhelmingly dominant in wine grape production, New York's Finger Lakes grape production is expanding and is used mostly for wine. The four major premium wine producers in New York's Finger Lakes region all produce significant amounts of grapes in their own vineyards, but purchase about 80 percent of the processing grapes from private growers. The sweet juice grape industry of western New York is dominated by National Grape Co-op. Some larger wineries from the Finger Lakes area also buy some grapes in western New York.

The California grape industry is comprised of many growers with a wide range of acreage. Major wineries own vineyards, but also purchase grapes on

contract or at going prices for grapes delivered to the winery during harvest. There are a number of wineries, ranging from two large ones to very small ones, including cooperative organizations.

For grapes, there are no land use alternatives in the short run (hence, 0 in table 1). However, periods of oversupply and low returns as occurred in California wine grapes in recent years provide an incentive to replace vineyards with other crops. This is more likely in the lower San Joaquin Valley, with its large parcels and lower land values, than in most other wine grape areas of California.

There are annual alternative production decisions possible in the case of Thompson Seedless grapes grown in California which may be channeled into different uses. The "1" in table 1 indicates that possibility. The grower interested in the fresh market for Thompson Seedless grapes must decide early enough in the growing season to cultivate the grapes in a manner to increase their size. Raisin versus wine-use decisions can be made up to September harvesttime. The raisin price negotiated by the Raisin Bargaining Association and contract prices offered by the wineries versus prospective prices for fresh market help determine the allocation of the large Thompson Seedless supply into the alternative market outlets.

The grape industry marketing system and associated contract characteristics vary with production areas. There are some grower organizations, but little bargaining over contract terms, though grapes are widely sold to wineries and processors on contracts.

The New York State Wine Grape Growers Association has members statewide, and provides wineries with production cost estimates for various grape varieties. There is no bargaining as such through this organization, but its cost calculations are apparently considered by the wineries in setting grape prices. The organization first undertook this effort in 1968-69 and witnessed a big jump in price.

In California, there is a new organization of wine grape growers, but no bargaining for contract terms with wineries. This organization was instrumental in passage of a law stipulating certain price reporting requirements that will be discussed later. In recent years, the Raisin Bargaining Association has been a significant force in the price determination process for grapes used for raisins. California raisin handlers range from the large marketing cooperatives, with a cross section of packages and outlets, to small handlers specializing in a particular market.

Contract pricing for wine grapes in California is complex because of contract differences for various wineries and the existence of many grape varieties. A number of multiyear contracts exist in the California wine grape industry and generally specify a minimum price. In years of strong markets, higher than minimum prices are paid by agreement between growers and wineries. Some such contracts are paid on the basis of the Federal-State market news price reports.

Of the total tonnage of California grapes crushed for wine, about half is purchased on the open market. The other half is not part of the transactional market, but is production from winery-owned vineyards or production

sold through cooperatives under contract to wineries. Many open market sales are made on contracts where prices paid are based on reported market prices.

There are varying amounts of price reporting for grapes in the different production areas. The American Agricultural Marketing Association Processing Grape Newsletter from the Chicago office covers Concord grapes. Its newsletters list specific price offers by name of winery making the offer.

Information on prices offered for grapes in New York is now generally public information through the New York State price posting requirement. The wineries seem satisfied with the situation, and market news reporting of New York wine grape prices should be relatively easy. Information on the Concord grape market in Washington and Michigan is very spotty and could be quite useful to New York growers, especially since Washington produces a significant volume of Concords.

The current weekly California Wine Report released by the San Francisco fruit and vegetable market news office includes information on some quality factors. The base price and sugar penalties or bonuses per degree brix (percentage measure of sugar content) are the primary factors reported. It may become more important to report penalty levels for the various factors if they materialize as quality control mechanisms. Sugar brix value and "material other than grapes" are currently the most important quality indicators.

Market news reporters obtain information from wineries, growers,

grower groups, and processor field representatives for competing uses of grapes. Reports are published weekly during the year, with a summary at the end of the season. Prior to 1977, the California wine grape industry relied heavily on the market news final report for pricing wine grapes. Many contracts were written to pay a minimum price or the average price, whichever was highest. As the sales price became more dependent on this reported price, the price was based on fewer transactions which increased the potential influence of any one price.

Reacting to the increasingly "thin" pricing base, the newly formed California Wine Grape Growers Association was instrumental in obtaining passage of a State law in 1977 requiring reporting of grape prices by vintners. The new price reporting law provides a reference price for the California wine grape trade. Vintners buying grapes for wine production are required to report all cash transactions to the market news program by January 10. A price report issued in January provides a reference price by which open contracts can be settled. The law then requires that those prices for contract settlements be reported by March 10. Contract sales settled in this manner represent an estimated 50 percent of the wine grapes sold.

Bulk wine prices to bottlers have been reported by the San Francisco market news office since 1947. There are some problems with the current report, which started when bulk sales to bottlers represented about 65 percent, rather than the current 15 percent, of wine grape use. The report is based primarily on valley blends which currently comprise most bulk wine. However, an increasing volume of bulk

sales are coastal wines for which transactions are just starting to be reported. Finally, interwinery bulk sales are not reported but represent an increasing volume of the bulk wine market, probably substantially greater than bottler sales.

### Contract Reporting Considerations

In the earlier segments of this report, we outlined some of the theoretical economic rationale for reporting price and trade terms. Our examination of product and market characteristics for the six commodities found a number of industry observations that reinforce the theoretical arguments.

In reaching a decision whether to report contract prices, what to report, and how to proceed, a number of considerations are important. These include: sources of information and potential users; methods and timing; and objections to reporting.

### Information Sources and Potential Users

In the absence of statutory authority making reporting mandatory, reporting of contract prices and terms depends on voluntary cooperation from growers and processors. Where bargaining associations exist, information could be gathered with relative ease from the grower's side. Processors could be contacted individually, with cooperation expected to be mixed. However, it is important to gather information from both parties to insure an unbiased report. When there is no bargaining association, information would need to be gathered from individual growers as well as from processors. The potential users of such information include:

1. Growers, especially those who are not members of bargaining associations;

2. Potential growers who are not presently growing a particular crop;

3. Processors, especially small regional processors who do not have a nationwide information system of their own, and may be disadvantaged in countering retail buyer claims of lower prices available in other areas;

4. The entire range of firms producing inputs to the agribusiness sector, e.g., can manufacturers; and

5. Government agencies including USDA, U.S. Department of Justice, Federal Trade Commission, and Small Business Administration.

A University of California study designed to determine the feasibility of measuring the benefits of market news "... found that individual firms tended to use the market news service for pricing decisions, advertising, demand prediction, and production and shipment decisions. Respondents perceived that the impact of the market news service on industry was to stabilize prices, bring about product and measurement standardization, and provide a basis for settlement of legal claims."<sup>9/</sup>

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<sup>9/</sup> Moulton, K. A., and Thomas P. Levinson, The Feasibility of Measuring Benefits of the California Federal-State Market News Service, University of California, Div. of Agricultural Sciences, Special Publication 8003, Sept. 1974, p. 65.

A recent California study which surveyed market news users concluded, among other things, that:

1. Agricultural producers are the most important single category of those receiving Federal-State market news.

2. An overwhelming number of the respondents (95 percent) said mailed reports were their most important source of market news.

3. About 43 percent indicated that the primary use of market news was to make buying or pricing decisions.

4. A surprisingly high number (35 percent) placed an annual value of more than \$50 for the market news they received.<sup>10/</sup>

#### Methods and Timing

Reporting of contract prices and terms in a market news context must be timely to serve the intended purpose. Market news reports are concerned with the "pricing mechanism" and intended to keep growers and marketing firms informed during the time they are making decisions. This requires reporting terms of signed contracts or negotiated agreements immediately, and in cases where such information is public within the relevant area, firm offers or bids which help to indicate the potential market. Such reporting would help

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<sup>10/</sup> James H. Cothorn, The California Federal-State Market News Composite Evaluation-1977, Division of Agricultural Sciences, University of California, Special Publication 3245, June 1978, pp. 9-10.

squelch rumors within the contract area, a prevalent element in many contracting situations. Even when information is common knowledge in the affected area, it probably is not elsewhere, and could be quickly disseminated by market news reporting.

If enough of the processing crops are bought on open price contracts or on open markets, it is important to report such pricing and purchase activities during harvest and marketing seasons. Judgments are required on whether the volume involved is sufficient to influence the market and thus warrants reporting. Wine grape reporting now includes bids and offers, as well as open price contract arrangements. A number of processing commodity open market purchases are currently reported, but a policy decision to do this nationwide is needed.

The importance of reporting prices actually paid for delivered product should be considered for each commodity. In some instances, e.g., potatoes, the base price specified in the contract differs significantly from prices actually paid for the quality of commodity delivered. Delivery manifests or grower settlement sheets may provide a source of data.

It is important to develop wide coverage of the industry involved. In cases of a large bargaining association and one producing area, this may mean only obtaining information on negotiated contract terms from the bargaining association and a few other sources. In cases of no bargaining organization and scattered production areas, the efforts to report become more complicated. It is important to obtain a thoroughly representative report regardless of the market structure involved. While a reported transaction could be accurate

for the proportion of the market represented, it may not be for the total market. One way of assuring market accuracy is to report approximate volume involved at the terms reported so that recipients know whether a transaction represents a significant quantity. Data from both growers and processors would increase credibility.

The yields expected in each area should be reported to indicate gross value of the crop per acre, since area and variety differences are important determinants of contract terms. Also, it is necessary to avoid reporting specialized transactions which may be unique and misleading. Such judgments increase the difficulty of reporting and accentuate the need for well-qualified personnel thoroughly familiar with the commodities being reported.

In the absence of a good operational method to "net out" the nonprice contract terms in order to make them comparable between processors or areas,<sup>11/</sup> the market news program could report each contract as offered by processors. If this is done, users of the information may then evaluate contract differences relative to their own situation.

Reports must be adapted in format to suit industry practices and needs. To attempt to force all commodities, or contracts for a given commodity, into one rigid format to simplify the

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<sup>11/</sup> Studies have been done on netting out vegetable contracts, but there is no easily applicable operational procedure available. See E. V. Jesse and A. C. Johnson, Jr., "An Analysis of Vegetable Contracts," American Journal of Agricultural Economics, 52(Nov. 1970):545-554.

reports could cause the whole concept of reporting contract terms to fail. Some degree of standardization and uniformity of terminology -- especially for a given commodity grown in various areas of the country -- is desirable to facilitate understanding of reports. But the format must accommodate practices in different production areas and maintain flexibility to handle year-to-year changes in contracting practices. In fact, it may be useful to highlight changes from the previous year's prices and terms. A listing of contract provisions used by the University of Wisconsin Extension Service may provide a useful guideline for developing a format for reporting.<sup>12/</sup> A workable, comprehensive format with reasonable standardization could be developed by a joint effort of reporters from various areas for the commodity involved. The Federal-State market news program should work with organizations currently reporting to set up formats, avoid duplication, and share reporting burdens.

Contract reporting may be quite different from fresh market reporting regarding disclosure of individual positions. A contract is generally public information within the local area; therefore, reporting of specific terms will do no harm even though it is possible to identify the company involved. National companies may object if they wish to use lack of information between producing areas as leverage to

obtain lower prices for contract purchases.

Reporting would be easier in some commodities and States than in others. Obviously, California conditions make it more feasible to report processing commodities. Bargaining associations for a number of commodities could provide data, and the importance of food processing in California has established precedents and a general atmosphere favorable to reporting. A number of price settlements are currently reported by California newspapers, indicating ready access to the information. There is generally good cooperation for bargained commodities for current market news reports, including a number of processing commodities during contracting periods.

The emphasis should be on reporting all processing purchases rather than just contracting for processing. Combined with reports of fresh market activity, the reports would then encompass the entire market. Many of the fresh market reports now deal with open market purchases for processing. However, a number of processing commodities are grown in areas geographically separated from the fresh counterpart, and a completely new reporting effort is required. Because production and marketing systems in adjacent States are closely related and processors usually process several commodities in each location, a comprehensive system of reporting contract terms for processing fruits and vegetables should be organized by commodity grouping from geographic areas.

Reporting on a timely basis obviously requires that a good network of information sources be developed. Initially, it would be easiest to start with existing bargaining associations

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<sup>12/</sup> Checklist of Provisions to be Considered in Grower-Canner Contracts, adapted by Gerald Campbell, No. 85, Dept. of Agricultural Economics, University of Wisconsin-Extension, Madison, Jan. 1975.

for price information, which could then be checked with processors. A more complete network should develop when more parties attempt to insure that their input is part of the system which directly affects them.

### **Objections to Reporting**

A number of objections are commonly raised against the reporting of contract prices and terms. The more common of these objections are discussed in this section, along with suggestions for dealing with them.

A major objection is directed at one of the major problems of contract reporting -- the lack of uniformity among different contracts and the difficulty of quantifying many contract features. Knowledgeable individuals in a particular industry apparently have little problem comparing contracts. It is very difficult to objectively place a dollar value on nonprice terms in various contracts, and attempts to reduce contracts to a common base for reporting may gloss over much of the information most valuable to market participants. In fact, the variability among different processors' contracts indicates the need for knowledge of such variability to be made available as market information. The nonprice terms of contracts should be fully specified as part of the market news report rather than quantified.

Another often-stated objection is that prices and terms of contracts are determined at the beginning of each season and thereby would necessarily be reported after the fact and be of little value to the industry. Since it is obviously impossible to report any price before a transaction occurs, this objection merely highlights the need for prompt reporting. Not all contracts are signed simultaneously, and information

on early contracts may be useful to participants signing contracts later.

A possible objection is that because geographical production cost differences result in inherent contract differences, it is almost impossible to meaningfully compare contracts from various growing areas. However, the argument unjustifiably assumes an ignorance of production cost differences on the part of the potential users of contract reports. Certainly, processors and growers in various regions are aware of production cost differences, location differences, varietal differences, conversion ratios, quality factors, and similar items which create contract differences. Rather than attempting any comparison of contracts, the reports should simply state the price and nonprice terms of contracts and leave comparisons to the users of the report. Fresh market price reports do not specify transportation differences nor costs of production for commodities sold.

Another objection states that it is impossible to meaningfully quantify why a grower decides to produce a particular commodity in response to a given set of contract prices and terms. This objection highlights one important reason for reporting. Since growers in a given production area often have the option of planting alternative crops, it is important that they be informed of the contracting possibilities in each of these crops. A market news report of contract prices and terms would provide the grower with an easily accessible, unbiased source of information. The historical record of prices and terms for each crop would facilitate production decisions, especially for the grower who is considering a crop that he or she has not previously produced. The market news program need not quantify contract returns nor interpret grower motives.



Some processors object that a particular contract reflects varietal and quality requirements demanded by their product mix and cannot be objectively related to the contract of another processor. Such variability in contracts among processors does not preclude reporting; in fact, it is the very reason for reporting so that users of the information may make their own judgments about comparability.

Many processors object that prices and terms of processing contracts are confidential information and that it is not likely that this information would be supplied voluntarily. Economic theory makes this objection quite predictable. In the absence of compulsory authority, any reporting system must rely on voluntary cooperation from growers and processors. Growers and grower bargaining groups generally can be expected to cooperate by supplying information on contract prices and terms. A wide range of expected cooperation was indicated by processors, from those adamantly opposed to cooperating to those who expressed complete willingness to supply information. Cooperation may eventually be obtained from those initially reluctant to participate, especially if they feel that their situation is not fairly represented.

A frequent objection is that reporting contract prices and terms might interfere with the contracting process and delay regular contract negotiations and plantings. While this objection does have some validity, rational producers would only sacrifice yield by delaying plantings to the extent that the value of the information obtained outweighed yield lost while they were waiting to see a market news report. Whenever relevant new information becomes available to a market, it should have an impact on the

functioning of the market. It is possible that contracting in one part of the country might be somewhat delayed until reports were available from another production area, but it would be economically unreasonable to assume that such delays would be allowed to significantly interfere with regular planting dates.

A final objection is that reporting contract prices and terms would provide only a partial indication of the true cost of canning crops, and it would be duplicative because the final value of production is currently reported by ESS at the end of each crop year. ESS reports serve a different purpose and do not represent a report of the "price" of the commodity when the transaction between grower and processor occurred. Market news reports would represent valid transactions occurring in the marketing chain for fruits and vegetables, giving an indication of the market's evaluation of the crop's worth at the time contracts are signed. After harvest ESS reports the final value of production for fruits and vegetables based on a survey of what processors paid for commodities under contract.

### **Summary and Recommendations**

Economic theory implies that market information is essential for efficient resource allocation in the production and marketing process. For processing fruits and vegetables marketed under contracts, currently available information on contract prices and nonprice terms is not adequate either in distribution or completeness to assure efficient market performance. There is potential to improve market efficiency by providing a more broadly based information system to inform participants and nonparticipants about the prices and contract terms.

Several production and marketing characteristics have been identified which reflect relative needs for reporting contract price information for different processing fruits and vegetables. By evaluating the marketing mechanisms and production characteristics for selected fruits and vegetables, we identified a number of issues related to contract price reporting. While there are difficulties to be faced in developing a meaningful contract price reporting system -- and objections would certainly be raised defending the status quo -- the problems do not appear insurmountable.

In summary, we recommend that the AMS fruit and vegetable market news program report contract prices and terms to complement reporting of fresh market prices which are widely available for most fruits and vegetables. The marketing system has changed since the institution of the Federal-State market news reporting system with its heavy emphasis on fresh market commodities. It is time to move ahead with expanded coverage of the processing segment of the market, which is now larger than the fresh market segment for major fruits and vegetables.

Methods of reporting do not necessarily coincide with those currently used for reporting fresh market prices, though some reporting of contract information currently is done through the fresh market reports. Geographic location and importance of certain crops in different areas indicate possible geographic groupings to be covered by contract price reporting. These logical units would reduce costs of reporting versus trying to have each State issue reports through the Federal-State market news offices. Similarities between the industries in adjacent States argue strongly for

organizing the reporting system along regional rather than State boundaries.

It does not appear operationally feasible to develop uniform formats for reporting contract prices and terms. Reporting should be initiated for major commodities, then expanded to include all processing commodities as experience is gained. Report formats and terminology which allow enough flexibility to accommodate regional and commodity differences, yet provide some basis for comparability in reporting, should be developed. Knowledgeable individuals representing grower organizations and processors could develop usable formats for reporting contract prices and terms.

Reporting experience and interaction with industry participants should provide an adequate basis for establishing a reporting system for processing commodities within 3 to 5 years. Then the market news system will provide a much more complete market reporting service for fruits and vegetables.<sup>13/</sup>

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<sup>13/</sup> A pilot project in reporting contract market news for peas, sweet corn, and snap beans was completed in Wisconsin in 1980. The project is being evaluated by the University of Wisconsin and was nearing completion as this report went to print.